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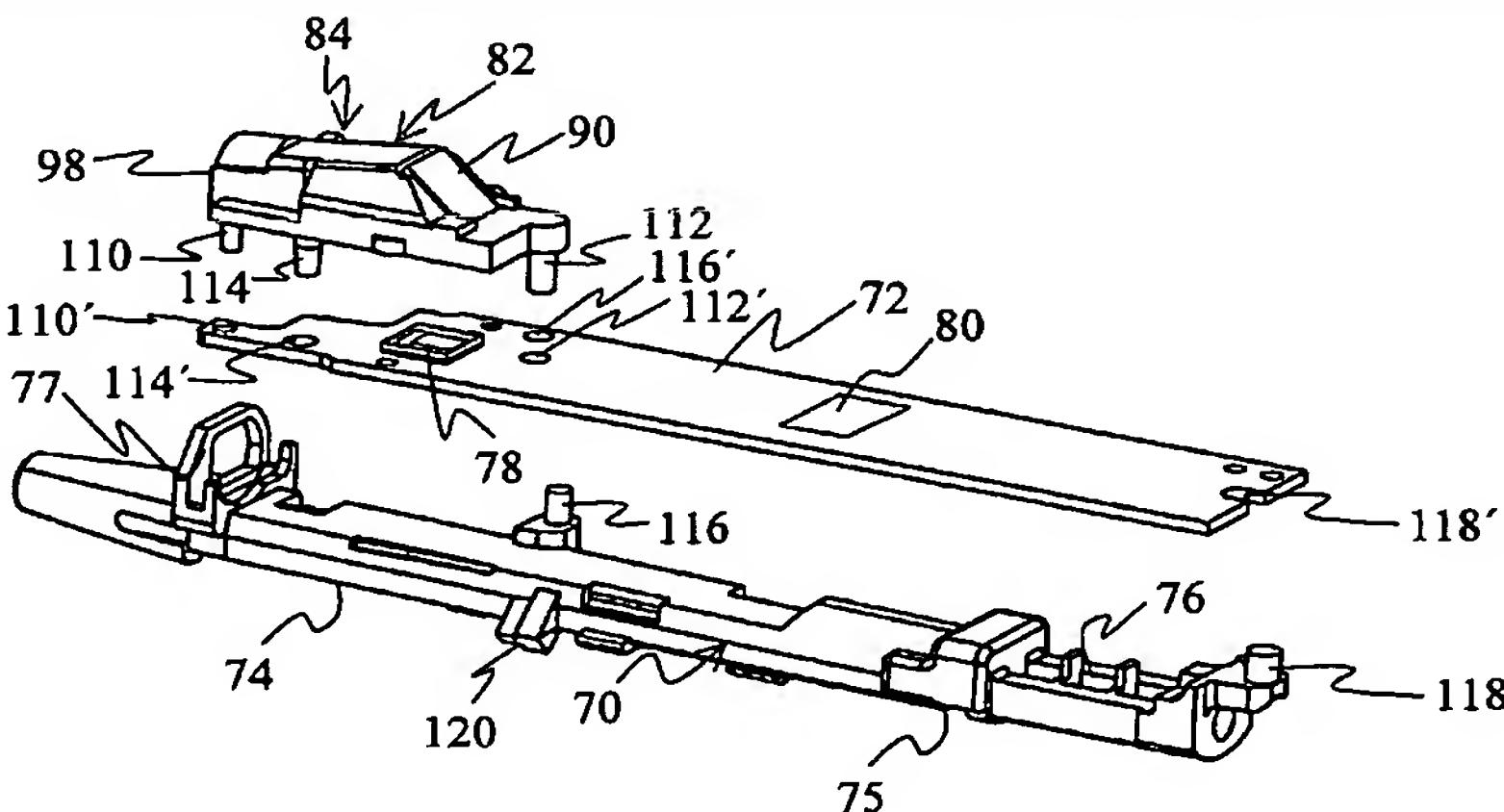
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(54) Title: **AN OPTICAL SYSTEM, AN ANALYSIS SYSTEM AND A MODULAR UNIT FOR AN ELECTRONIC PEN**



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(57) Abstract: A modular unit is designed for an electronic pen. The modular unit comprises a carrier (70) with a receiver for a writing implement, a printed circuit board (72), a two-dimensional radiation sensor (78) mounted on the printed circuit board, and an imaging unit (82) which defines an image plane. The carrier (70), the printed circuit board (72), and the imaging unit (82) are joined together with the imaging unit (82) facing the radiation sensor (78) to locate the image plane at the radiation sensor (78). The modular unit may comprise an analysis system dedicated to a particular optical analysis application, such as position determination based on images of a position-coding pattern. A radiation source, such as an LED or a laser diode, may be arranged on the printed circuit board or mounted in a holder on the imaging unit. The imaging unit (82) may be implemented as a boresight unit for controlling the spatial origin of radiation transmitted towards the radiation sensor (78). The boresight unit may comprise a radiation-transmitting channel, an imaging lens, and a redirecting mirror in the channel.



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